UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/657,234	09/07/2000	James Patrick Allen	ROC9-2000-0220-US1	1600

7590	03/22/2007	

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EXAMINER
ENGLAND, DAVID E

ART UNIT	PAPER NUMBER
2143	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Office Action Summary	Application No.	Applicant(s)
		09/657,234	ALLEN ET AL.
		Examiner	Art Unit	
		David E. England	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2006*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 – 4, 6, and 8 – 18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 – 4, 6, and 8 – 18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1 – 4, 6, and 8 – 18 are presented for examination.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

3.   Claims 1, 4, 6 and 8 – 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Gunlock (6952734) in view of Berman (7012914) in further view of McCarty (6356944) and

T11/99-594v2.

4.   Referencing claim 1, as closely interpreted by the Examiner, Gunlock teaches a storage

area network (SAN) configuration method via enabling in-band communications comprising the

steps of:

5.   utilizing a SAN application for managing and configuring the storage area network, (e.g.,

col. 8, lines 1 – 48);

6.   said SAN application for communicating with at least one SAN-connected host system

and for communicating with a host bus adapter (HBA) device driver, (e.g., col. 8, lines 1 – 48),

and

7.   providing a pass through in said HBA device driver for passing communications to a

designated device in the storage area network from said SAN application including at least one

topology analysis command, (e.g., col. 8, lines 1 – 48),

8.   said at least one topology analysis command including a command to get interconnect

information and a command to get topology information, (e.g., col. 8, lines 1 – 48);

9.   but does not specifically teach a type of management program;

10.   providing said pass through includes providing at least a transport pass through and an

extended link service (ELS) pass through;

11.   each of said transport pass through and said extended link service (ELS) pass through

being a binary pass through, each taking applied commands and passing said commands to said

designated device in the storage area network.

12.   Berman teaches a type of management program, (e.g., col. 11,lines 51 – 67);

13.   providing said pass through includes providing at least a transport pass through and an

extended link service (ELS) pass through, (e.g., col. 9, lines 13 – 20);

14.   each of said transport pass through and said extended link service (ELS) pass through

being a binary pass through, each taking applied commands and passing said commands to said

designated device in the storage area network, (e.g., col. 9, lines 13 – 20).

15.   McCarty teaches providing said pass through includes providing at least a transport pass

through, (e.g., col. 9, lines 38 – 61).

16.   Furthermore, T11/99-594v2 teaches the standard topology discover extended link service

known as Request Topology Information (RTIN). It would have been obvious to one of ordinary

skill in the art at the time the invention was made to combine the teachings of Berman, McCarty

and T11/99-594v2 with Gunlock because utilizing a pass through allows the system to send out

specific protocol requests that can be responded to by other, similar devices on the network

which ensures that proper queries of information are compatible between other neighboring

nodes in the network. Furthermore utilizing a standard such as a link service or an Extended link

service to implement a request would only take one of ordinary skill in the art to perform.

17.   As per claim 4, as closely interpreted by the Examiner, Gunlock teaches as the step of

providing predefined protocol functions for communicating with said device in the storage area

network include the step of providing a transport protocol function, (e.g., col. 8, lines 1 – 48), but

does not teach an extended link service (ELS) protocol function. Berman, McCarty and T11/99-

594v2 teach an extended link service (ELS) protocol function, (e.g., as stated above). It would

have been obvious to one of ordinary skill in the art at the time the invention was made to

combine Berman, McCarty and T11/99-594v2 with Gunlock because it would be more efficient

for a system to utilize ELS for responding to a payload translation during a public-to-private

translation or private-to-public.

18.   Referencing claim 6, as closely interpreted by the Examiner, Gunlock and McCarty teach

the step of providing said pass through in said host bus adapter (HBA) device driver through a

host bus adapter (HBA) for passing communications to a device in the storage area network from

said SAN management application includes the step of providing said pass through for passing a

plurality of commands, (cited areas stated above). It would have been obvious to one of ordinary

skill in the art at the time the invention was made to combine Berman, McCarty and T11/99-594v2 with Gunlock because of similar reasons stated above.

19.   As per claim 8, as closely interpreted by the Examiner, Gunlock does not specifically teach the step of providing said pass through for passing at least one performance analysis command. Berman, McCarty and T11/99-594v2 teach the step of providing said pass through for passing at least one performance analysis command, (cited areas stated above). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Berman, McCarty and T11/99-594v2 with Gunlock because of similar reasons stated above and furthermore, it would be more efficient for a system to analyze the performance of a system in order to make sure that the system is running properly and when errors occur, they are easily identified and taken care of.

20.   Claims 9 – 14 and 16 are rejected for similar reasons as stated above including claims 1, 6 and 10.

21.   Claim 15 is rejected for similar reasons stated above.

22.   Claims 2, 3, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gunlock, Berman, McCarty and T11/99-594v2 as applied to the claims above and in further view of Haren (6557060).

23.   As per claim 2, as closely interpreted by the Examiner, Gunlock, Berman, McCarty and

T11/99-594v2 teaches the step of utilizing said SAN management application for communicating

with a HBA device driver includes the step of providing a management application agent

coupled between an end user and a storage device, (e.g. col. 1, lines 35 – 45, *"transfer agent"*),

but does not specifically teach the agent coupled between the management application and said

HBA device driver. Haren teaches the agent coupled between the management application and

said HBA device driver, (e.g. col. 4, lines 1 – 28, *"...agent (e.g. I/O controller)..."* & Figures 1

and 2). It would have been obvious to on of ordinary skill in the art at the time the invention was

made to combine Haren with the combine system of Gunlock, Berman, McCarty and·T11/99-

594v2 because an agent could perform management functions concerning which storage units

and transmission information are within the scope or not within the scope for each node.

24.   As per claim 3, as closely interpreted by the Examiner, Gunlock, Berman, McCarty and

·T11/99-594v2 do not specifically teach the step of utilizing said management application agent

for providing predefined, fibre channel, protocol functions for communicating with said device

in the storage area network. Haren teaches the step of utilizing said management application

agent for providing predefined, fibre channel, protocol functions for communicating with said

device in the storage area network, (e.g. col. 4, lines 1 – 28, *"...agent (e.g. I/O controller)..."*). It

would have been obvious to on of ordinary skill in the art at the time the invention was made to

combine Haren with the combine system of Gunlock, Berman, McCarty and T11/99-594v2

because of similar reasons as stated above.

25.   Claims 17 and 18 are rejected for similar reasons as stated above.

Response to Arguments

26.   Applicant's arguments, see Appeal Brief, filed 11/30/2006, with respect to All the claim

rejection(s) have been fully considered and are persuasive. Therefore, the rejection has been

withdrawn. However, upon further consideration, a new ground(s) of rejection has been made.

Conclusion

27.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

28.   a.   Gunlock U.S. Patent No. 6606630 discloses Data structure and method for

tracking network topology in a fiber channel port driver.

29.   b.   McAdam et al. U.S. Patent No. 6430714 discloses Failure detection and isolation.

30.   O'Donnell, July 21, 1999, McData Corporation, Requesting Topology information

(RTIN) Extended Link Service For Topology Discovery Revision 2.0.

31.   Michael E. O'Donnell, October 1999, McData Corporation, Requesting Topology

information (RTIN) Proposal.

32.   www.t11.org, June 29, 1998, T11/98-264v1 ELS Proposal Rev. 1.1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David E. England whose telephone number is 571-272-3912. The examiner can normally be reached on Mon-Thur, 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on 571-272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David E. England
Examiner
Art Unit 2143

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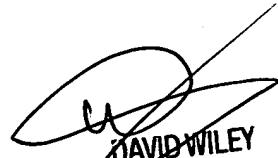
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